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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,654	07/24/2003	Masanobu Okada	O3020.0342/P342	8902

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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L Street, NW
Washington, DC 20037

EXAMINER	
KOYAMA, KUMIKO C	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,654	OKADA, MASANOBU	
	Examiner	Art Unit	
	Kumiko C. Koyama	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Appeal Brief filed on May 31, 2005 has been acknowledged.

Upon careful review of the Appeal Brief and consultation with a Primary Examiner, the Examiner has decided to withdraw the Final Rejection. Subsequently, new grounds of rejection have been provided below. Accordingly, this action is Non-Final.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al (US 6,824,062) in view of Miyashita (US 5,397,883).

Re claims 1-4 and 8: Hirasawa teaches a card reader having a shutter 502 (col 22, lines 10-17), which is a card entrance to the card reader, a magnetic head 24 that reads out data from the card (col 6, lines 62-65), and a card transporting mechanism for the card reader that discharges the card from the card reader (col 5, lines 1-5; col 7, lines 20-25). Hirasawa also teaches a card entrance unit 508 that is attached to the outside surface of the card reader entrance as shown in Fig. 30. A pre-head 515 is attached to the card entrance unit 508, and detects an insertion of a card 501 (col 22, lines 60-63). The pre-head 515 is a sensor for detecting the presence of the card.

Hirasawa does not specifically teach an ultrasonic wave sensor and detecting whether the card is present outside when the card is discharged by the card conveyance mechanism. Hirasawa does not specifically teach an output circuit for outputting information read by the readout head.

Miyashita teaches that the outlet 16 of the card reader is provided with a sensor 22 for sensing whether the magnetic commuter pass 12 is discharged (col 4, lines 7-11). Miyashita also teaches proximity sensors that detect the object when the sensor catches the reflected light in the predetermined time. The proximity sensor is supersonic waves sensor, which radiates the supersonic waves and detects it (col 3, lines 53-67). Supersonic waves are ultrasonic waves. Miyashita also teaches that the CPU 42 compares the read inspection information of ticket with reference data memorized in RAM 46, the information thus read is used to determine whether the passenger should be allowed to pass or not (col 5, lines 50-55). Such disclosure teaches output circuit for outputting information read by the readout head and also a transaction processing unit.

Therefore, it would have been obvious to artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Miyashita to the teachings of Hirasawa in order to ensure that the card is discharged properly by monitoring the card to prevent card jam within the reader, and to process the card to ensure that the card is valid for further use.

3. Claims 5-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa in view of Miyashita and Okano (JPO 11-153666).

Hirasawa teaches a card reader having a shutter 502 (col 22, lines 10-17), which is a card entrance to the card reader, a magnetic head 24 that reads out data from the card (col 6, lines 62-65), and a card transporting mechanism for the card reader that discharges the card from the card

reader (col 5, lines 1-5; col 7, lines 20-25). Hirasawa also teaches a card entrance unit 508 that is attached to the outside surface of the card reader entrance as shown in Fig. 30. A pre-head 515 is attached to the card entrance unit 508, and detects an insertion of a card 501 (col 22, lines 60-63). The pre-head 515 is a sensor for detecting the presence of the card.

Hirasawa does not specifically teach an ultrasonic wave sensor and detecting whether the card is present outside when the card is discharged by the card conveyance mechanism. Hirasawa does not specifically teach an output circuit for outputting information read by the readout head.

Miyashita teaches that the outlet 16 of the card reader is provided with a sensor 22 for sensing whether the magnetic commuter pass 12 is discharged (col 4, lines 7-11). Miyashita also teaches proximity sensors that detect the object when the sensor catches the reflected light in the predetermined time. The proximity sensor is supersonic waves sensor, which radiates the supersonic waves and detects it (col 3, lines 53-67). Supersonic waves are ultrasonic waves. Miyashita also teaches that the CPU 42 compares the read inspection information of ticket with reference data memorized in RAM 46, the information thus read is used to determine whether the passenger should be allowed to pass or not (col 5, lines 50-55). Such disclosure teaches output circuit for outputting information read by the readout head and also a transaction processing unit.

Therefore, it would have been obvious to artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Miyashita to the teachings of Hirasawa in order to ensure that the card is discharged properly by monitoring the card to prevent card jam within the reader, and to process the card to ensure that the card is valid for further use.

Hirasawa as modified by Miyashita does not specifically teach a memory for storing a reference duration and an abnormality determination unit.

Okano discloses emitting ultrasonic wave repeatedly from an ultrasonic wave transmission element of each ultrasonic sensor toward a monitoring region and receiving reflection wave appearing in a specific monitoring period from the time of ultrasonic wave emission using an ultrasonic wave reception element at each time, the ultrasonic wave emission interval is made irregular for each ultrasonic wave sensor and the reflection wave received in the monitoring period is stored in memory means in turn. Based on a plurality of reflection wave data stored in the memory means, the existence of an object in the monitoring region is detected (Abstract).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Okano to the teachings of Hirasawa as modified by Miyashita because ultrasonic wave does not require direct contact with the object, and therefore, provides the flexibility of accommodating different shaped and sized objects to detect foreign objects other than a regular card to further prevent illegal objects from entering the card reader.

Response to Arguments

4. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 571-272-2394. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kumiko C. Koyama

Kumiko C. Koyama
August 04, 2005

MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800